REMARKS

The following remarks are made in response to the Office Action mailed March 9, 2006. Claims 1-34 were rejected. With this Response, claim 34 has been amended. Claims 1-34 remain pending in the application and are presented for reconsideration and allowance.

Objections to Specification

The Examiner objected to the specification for an informality at page 3, line 1. The above-amendment to paragraph [0003] of the specification clearly defines IP to refer to "internet protocol" as is well known in the art. Therefore, Applicants believe this informality is corrected and respectfully request that the objection to the specification be withdrawn.

Claim Rejections under 35 U.S.C. § 101

The Examiner rejected claims 22, 24-26, and 34 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

As to claims 22 and 24-26, M.P.E.P § 2106 V.A.2. states that a "means plus function limitation is distinctly claimed if the description makes it clear that the means corresponds to well-defined structure of a computer or computer component implemented in either hardware or software and it associated hardware platform." The present specification states at paragraph [0043] that "method 600 is performed by processing logic, which may comprise hardware, software, or a combination of both." Prior to this, the present specification at paragraph [0019] states that "it is also to be understood that embodiments of this invention may be used as or to support a software program executed upon some form of processing core (such as the CPU of a computer) or otherwise implemented or realized upon or within a machine readable medium." Thus, it is clear that in paragraph [0043] software refers to software and its associated hardware platform. Therefore, the processing logic falls within statutory subject matter and thus rejected claims 22 and 24-26 are believed to be allowable.

Amended independent claim 34 specifically claims a computer readable storage medium storing executable instructions which when executed on a processing system cause said processing system to perform a method. The present specification at paragraph [0019] states that a "machine-readable medium includes any mechanism for storing or transmitting information in a form readable by a machine (e.g., a computer)." As amended, independent

claim 34 only refers to a computer readable storage medium storing executable instructions. Therefore, amended independent claim 34 is directed to statutory subject matter.

Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 101 rejection to claims 22 and 24-26, and 34 and request allowance of these claims.

Claim Rejections under 35 U.S.C. § 102

The Examiner rejected claims 1-34 under 35 U.S.C. § 102(b) as being anticipated by the InfiniBand Trade Association, (InfiniBand Architecture Specification Volume 1, Release 1.0.a, June 19, 2001 (the "InfiniBand reference").

The InfiniBand Architecture (IBA) is defined by the InfiniBand reference. In the IBA, an interconnect device typically includes a management port. Each sub-network (subnet) is managed by at least one Subnet Manager which performs its managing functions by communicating with the management port of an interconnect device using InfiniBand Subnet Management Packets (SMPs).

SMPs are used to initialize and configure switches and other interconnect devices, and are therefore considered to participate in privileged operations. As a result, a mechanism is provided to authorize subnet management operations by comparing authentication data included in a SMP with authentication data stored in a destination port. The authentication data includes a Management Key (e.g., the InfiniBand Management Key). The Management Key is associated with several attributes that may affect the authorization of subnet management operations. For example, these attributes may include a protection attribute (e.g., the InfiniBand M_KeyProtectBits) that identifies levels of protection required for specific subnet management operations and an expiration attribute (e.g., the InfiniBand M_KeyLeasePeriod) that allows the management key to "expire" if the management key is lost or contaminated. The expiration of the management key attribute is not permitted if the expiration attribute is set to zero. Accordingly, a problem may arise when the management key is lost or becomes contaminated while the expiration attribute is equal to zero.

The Infiniband reference at 14.2.4.2 at p 657 specifically states "when the *PortInfo:M_KeyLeasePeriod* is set to zero, the lease period shall never expire. Whether there is an out-of-band mechanism to reset data protected with a lease period of zero is outside the scope of the specification." Embodiments of the present invention claimed in independent claims 1, 8, 12, 22, 23, 33, and 34 generally provide or facilitate mechanisms to reset data

protected with a lease period of zero which is explicitly excluded from the Infiniband reference.

The specific limitations of the independent claims that allow a subnet manager or any other authorized entity to regain control over an interconnect device and reset data at any time even with a lease period of zero (and therefore explicitly not taught in the InfiniBand reference) are as follows.

Independent claim 1 includes a configuration switch configured to receive an operator command to reset authentication data that facilitates authorization of the management operations from an operator, and configured to generate a reset signal in response to the operator command, and a port of the interconnect device coupled to the configuration switch, the port configured to maintain the authentication data and to reset the authentication data upon receiving the reset signal from the configuration switch.

Independent claim 8 includes receiving a reset signal from a configuration switch at a decoder of a management port, the reset signal indicating that an operator requested a reset of an authentication data that facilitates authorization of the management operations, and resetting a copy of the authentication data, wherein the authentication data is stored in the decoder in response to the reset signal.

Independent claims 12, 22, and 34 include limitations related to detecting that a reset of authentication data residing in a management port of the interconnect device is required, informing an operator that the reset is required, refraining from sending subnet management packets (SMPs) to the management port upon detecting that the reset is required, receiving a message from the operator that indicates that the authentication data has been reset, and sending to the management port an update SMP with a request to set authentication data residing in each unit of the interconnect device to an update value.

Independent claim 23 includes an interconnect device to maintain authentication data in a plurality of units, the authentication data facilitating management operations associated with the interconnect device, a configuration switch coupled to the interconnect device, the configuration switch configured to reset authentication data residing in a management port of the interconnect device, and a sub-network (subnet) manager coupled to the interconnect device, the subnet manager configured to detect that the reset of authentication data residing in the management port is required, to inform an operator that the authentication data has

been reset, and to send to the management port an update data packet with a request to set the authentication data residing in each of the plurality of units of the interconnect device to an update value.

Independent claim 33 includes a decoder configured to reset an authentication data stored in the decoder based on a reset signal received from a configuration switch, and to receive a management packet from the sub-network (subnet) manager with an update value for the authentication data residing in a plurality of units of an interconnect device, and a subnet management agent configured to receive the management packet from the decoder and to control the update of the authentication data residing in each of the plurality of units.

Therefore, independent claims 1, 8, 12, 22, 23, 33, and 34 all include limitations that are explicitly excluded from the InfiniBand reference. Therefore, these independent claims are not taught by the Infiniband reference.

Furthermore, dependent claims 2-7 further define patentably distinct independent claim 1; dependent claims 9-11 further define patentably distinct independent claim 8; dependent claims 13-21 further define patentably distinct independent claim 12; dependent claims 24-26 further define patentably distinct independent claim 22; and dependent claims 27-32 further define patentably distinct independent claim 23. Therefore, these dependent claims are believed to be allowable.

Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection to claims 1-34, and request allowance of these claims.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-34 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-34 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-3718.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to either Patrick G. Billig at Telephone No. (612) 573-2003, Facsimile No. (612) 573-2005 or John Pessetto at Telephone No. (303) 298-9888, Facsimile No. (303) 297-2266. In addition, all correspondence should continue to be directed to the following address:

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (571) 273-8300 on this 10 day of June, 2006.

By
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